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The development of difference

Social change around the Ok Tedi Copper and Gold Mine, Papua New Guinea

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Abstract

The research presented here is based on one-month of fieldwork, during which forty-two interviews were conducted in and around Tabubil in Papua New Guinea's Western Province. I argue that non-renewable resource extraction creates particular forms of inequality in Papua New Guinea, based on the legal status of customary landownership, an emerging class system associated with a form of nationalism which draws on imagery of a generic notion of kastom, and the need for mining companies and the state to identify clearly (geographically and territorially) bounded landowning groups as the recipients of royalty and compensation payments. While local actors may be deeply concerned about the prospects for continued access to morally and materially desirable forms of development following mine closure, elites working for Ok Tedi Mining Limited valorise kastom and 'village life' in such a way that they at times refuse to frame the inevitable closure of the mine as a problem.

Keywords

non-renewable resource extraction; development; kastom; Ok Tedi; mine closure

Introduction to the field site: Copper and Gold from the Land of the Dead

In 1972, three years before the Independence of Papua New Guinea (PNG),¹ prospectors working for the Canadian firm Kenecott estimated that Mount Fubilan, in the Star Mountains of PNG's Western Province, contained up to 164 million tonnes of gold and copper reserves.² A year after Independence, in 1976, the World Bank insisted that PNG pursue a path to development and modernization based on non-renewable resource extraction (NRRE).³ The postcolonial nation-building elites were, however, insistent that a Melanesian Way to development be secured. In 1974 the Land Groups Incorporation Act (LGIA) had created a structure which provided for the inclusion of customary landowning groups in plantation-based development activities, and the framework was soon applied to identifying the customary landowners of mine sites, to whom royalties would be delivered.

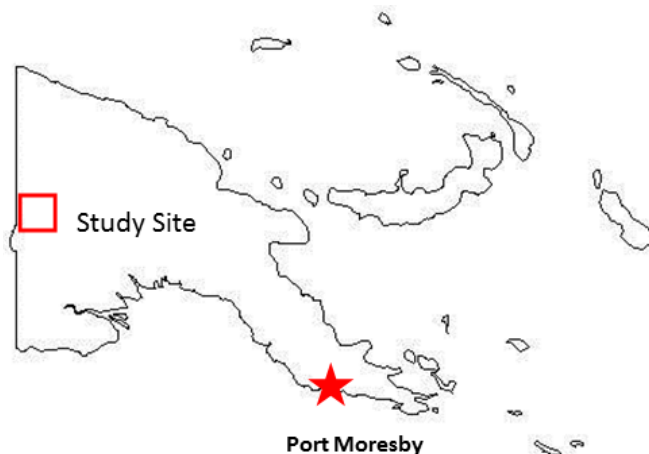


Figure 1: Map of PNG highlighting study area (see Figure 2).

1 A complete list of acronyms is at the end of the text.

2 The history of Ok Tedi depicted here is drawn from the following sources and from data obtained during fieldwork: Auty (1995); Burton (1997); Connell (1991); Filer (1997); Hyndman (1997); R. Jackson (1982); Jorgensen (1996); Kalinoe (2003); Kalinoe (2008); Kirsch (2001); Mawuli and Sanida (2000); Weiner and Glaskin (2007).

3 One half of PNG's budget at the time of Independence (1975) came from Australian and other aid; hence NRRE was seen as the only possible path to economic development and modernisation (Gewertz and Errington 1999:3; R. Jackson 1982:148).

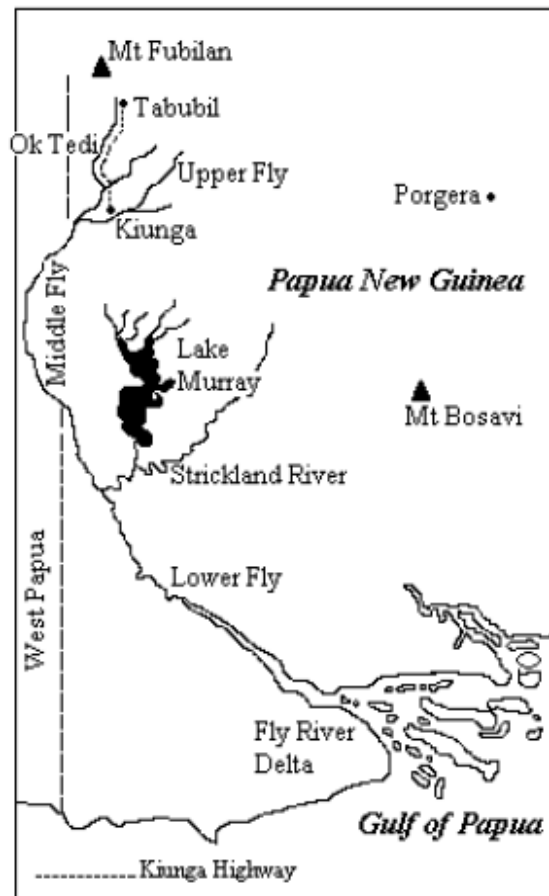


Figure 2: Mount Fubilan and the Fly River in Western Province, PNG. Map courtesy of Emma Gilberthorpe.

By 1984, large scale copper and gold production had begun at the Ok Tedi mine on Mount Fubilan, despite the collapse of the Ok Ma tailings dam. Landowners around Fubilan agitated for higher royalty payments in 1989, at the Ok Tedi Development Forum, and in 1992 the PNG Mining Act was introduced. The Act contains provisions for the customary landowners whose land directly hosts mining activities, and which is rented under a Special Mining Lease (SML). These provisions include insurance of preferential employment at the mine. In 1996, the PNG Land Act was introduced, covering the payment of royalties to those whose customary land was used under a Lease for Mining Purposes (LMP), for land upon which mining infrastructure — dams and company housing — had been situated. The ‘development of difference’ had thus been set in motion: legislation which ensured

differential access to employment and monetary compensation, based on a nationalist notion of pan-Melanesian custom, had been enacted.

Between 1992 and 1996, however, a lawsuit had been initiated against the then majority shareholders of the Ok Tedi venture, Broken Hill Proprietary (BHP) Ltd. The lawsuit was filed by groups living downstream of the mine on the Fly River, whose livelihoods and land had been devastated by the absence of a proper tailings (mine waste) dam, following the Ok Ma collapse in 1984 (see Kirsch 2004a, for an ‘ethnography of loss’). The lawsuit eventually resulted in an agreement to restrict tailings, and a US\$550m out-of-court settlement to be paid by BHP to various downstream groups. These groups included the Yonggom, among whom the anthropologist Stuart Kirsch had worked, and on behalf of whom he has acted as an advocate (Kirsch 2001, 2002, 2007). In 2000, BHP found themselves once more facing a lawsuit for abrogation of their 1996 out-of-court settlement. Citing irreconcilable differences between the Ok Tedi mining strategy and their environmental principles, BHP (newly merged with Billiton) divested its 52% stake in Ok Tedi Mining Ltd (OTML) in early 2002. This 52% share was left to a trust fund domiciled in Singapore, The PNG Sustainable Development Company Ltd (PNGSDC). The income to the PNGSDC is supposed to facilitate development projects throughout the State of PNG. The ultimate outcome of BHP Billiton’s divestment was the initiation of Community Mine Continuation Agreements (CMCAs),⁴ which oblige OTML to pay environmental compensation (in addition to the royalties paid to SML and LMP villages), and prohibit villagers from taking further legal action against the mine. Some CMCAs were still under negotiation at the time of my fieldwork in 2008.

Disputes over the extent and cause of social and environmental disturbances attributed to mining activities at Ok Tedi, and over the allocation of resource rents (in the form of royalties and compensation), have subjected to intensive social scientific scrutiny. An entire volume has been devoted to analysing the initial 1996 settlement (Banks and Ballard 1997a). Academics have been polarised in their analyses of Ok Tedi and its social and

⁴ Under the Mining (Ok Tedi Mine Continuation (9th Supplemental) Agreement) Act 2001.

environmental impacts, with David Hyndman (2001) critical of those scholars who have acted as consultants to the mine, and Stuart Kirsch (2002) likewise criticising the assumption that the best course of anthropological action is to position oneself as an honest neutral broker. Kirsch has for his part debunked the notion that anthropologists can act as honest brokers based on the facts that Ok Tedi could walk out of negotiations with local communities at any point, that the Ok Tedi mine had a close relationship with the PNG government, and that BHP has in the past exerted ‘power of veto over the publication of anthropological research’ (2002:179), research produced through relationships with indigenous groups opposed to the mine. Interpretation of landowner behaviour vis-à-vis compensation payments has also been the basis for disputes between Kirsch and Hyndman, on the one hand, and Glenn Banks and Chris Ballard on the other. Hyndman, for example, is critical of Banks and others for interpreting landowner protest in terms of ‘economic-based models’ (Hyndman 2001:40), that overlook the extent to which Yonggom resistance to the mine was a thoroughly ecological movement. Hyndman accuses those who adopt this approach of creating the opinion that landowner compensation movements are based on greed, rather than ecological grievance, thus absolving mining companies of ecological responsibility.⁵ It might seem from Hyndman’s assertions that Glenn Banks adheres to the notion associated with Collier (2008) that mining conflict is driven purely by greed rather than grievance, but such allegations may be unfounded (Banks 2008). Ballard and Banks’ position is not so much that local contests with the mine are purely economically, rather than environmentally, motivated. Rather, they seem to suggest that apparently environmental concerns might be understood as part of a

5 Notably, even transnational campaigners who supported the Yonggom claims in 1995 struggled to come to terms with the fact that indigenous groups would want the mine to continue; this was not seen as appropriately indigenous – or ecologically noble (see Kirsch 2007). Kirsch (2004b) provides a framework for interpreting Yonggom behaviour in terms of Melanesian approaches to compensation that do not involve cutting social networks in the same way that Euro-American approaches to compensation do. Benson and Kirsch (2010:467–468) however, understand the Yonggom behaviour in terms of a dominant structure of feeling in contemporary capitalism, that of the ‘politics of resignation,’ which for the Yonggom involves resignation to destruction by, and dependency on, OTML.

wider struggle to control what Bebbington et al. (2008:899) refer to as contests ‘over the meaning of development’:

...most local communities are fundamentally concerned with questions of control over their own destinies...protest over environmental destruction is, at one level and quite obviously, in response to and about environmental destruction; but such protest is not always reducible to a prioritization of environmental concern over other interests. (Ballard and Banks 2003:298–299)

The economicist greed/grievance framework for understanding contests over the course of NRRE developments could certainly benefit from further anthropological attention (Weszkalnys 2010). In addition, the limited extent to which any social scientist conducting impact assessments on behalf of an NRRE corporation can avoid having their findings co-opted is disconcerting, and the role that impact assessments increasingly play in social and environmental governance merits further study (Li 2009). However, I adopted a different focus to that of the majority of authors who have studied Ok Tedi. Firstly, my focus was on a village that was near to the mine rather than downstream, and which thus did not receive environmental compensation payments. In addition the focal study site was neither an SML nor an LMP village. The focus was, however, a Mountain Ok village, which was populated by many who considered themselves to be members of the same kinship groups and customary landowning groups as those who did receive royalties. My aim was to describe and analyse the ‘development of difference’ — in wealth, status, and relatedness — as it has been experienced by those resident around Ok Tedi, and to understand how emerging categories of social difference structured perceptions, and would be likely to affect experiences, of the inevitable closure of the mine.



Figure 3: Mount Fubilan is the lower peak to the left. It was higher than the peak to the right before mining began. Photograph by Paul Gilbert.

The Ok Tedi mine is of central importance to the economy of PNG, contributing at times 11% of the nation's GDP, and providing up to 18% of its foreign exchange earnings (Kirsch 2007:309). But neither is the extraction of copper and gold from Mount Fubilan without local significance. The residents of the Star Mountains were classified together as the 'Mountain Ok' in 1964 by the linguist Alan Healey, on both linguistic and geographical grounds (Gilberthorpe 2008:39; Jorgensen 1996:191). Ethnographies of the Mountain Ok emphasise the widespread significance of the cult of Afek, an apical ancestress. Shared descent from Afek is the symbolic foundation for many contemporary articulations of Min (lit. people) ethnic identity, Min being a locally used autonym (Gardner 2004:108)⁶. Afek's mythic journeys — her tracks and traces — have structured gender relations, cultivation practices, networks of exchange between communities in different ecological zones, and ritual behaviour among the Mountain Ok communities (Brumbaugh 1990:68–69;

⁶ I continue to use Mountain Ok throughout this paper, since the geographical limits at which 'Min' boundaries are symbolically drawn by local residents are incredibly variable, as are the locally suggested bases for 'Min tribe' identity. Mountain Ok is an etic designation, and is thus rigid, and does not reflect ethnic identity (in terms of a local recognition of difference in others), but it is a useful linguistic, geographical, and mythico-genealogical term for analytical purposes.

Gilberthorpe 2008:40; Jorgensen 2004; Hyndman 1997). In addition, Afek created *Bagelam*, the land of the dead — and the source of traditional shell and stone-axe wealth — underneath Mount Fubilan.

Village	Agreement	Royalties Received (2001-2006)
Kavorabip	Special Mining Lease	K2.1m
Finalbin	Special Mining Lease	K4.6m
Bultem	Special Mining Lease	K2.1m
Atemkit	Special Mining Lease	K2.1m
Wangbin	Lease for Mining Purposes (township land)	K5.6m
Migalsim	Lease for Mining Purposes (hydro-electric plant)	K2.5m

Figure 4 Table detailing SML/LMP payments. K1 = £0.20. From OTML 2006:17.

The discovery of copper and gold under Mount Fubilan, the site traditionally considered to be the source of Mountain Ok wealth, has led to economic inequalities developing between SML, LMP, and local ‘non-censused’ (non-royalty receiving) villages. Pre-mine ritual inequalities have been re-articulated, with the geographically distant but ritually prestigious Telefolmin (Telefolip village being the mythical point of origin for all Mountain Ok) claiming rights to royalty payments on the grounds of their genealogical proximity to Afek (Jorgensen 2004:73). Privileged access to formal education for SML villages, assured by the 1992 Mining Act, has been accompanied by a decline in the complex series of initiation practices through which individual men were ‘socially manufactured’ (Polier 1996:2; Barth 1987). The decline in initiation practice is perhaps not unrelated to a Mountain Ok-led Christian *rebaibal* (lit. revival). New categories of socioeconomic difference are articulated: landowner, worker, and ‘subsistence’; the latter being a local category that designates horticulturalists who do not participate in waged work, even if their produce is sold at markets. Morally loaded categories of difference – educated versus *kanaka*⁷ or *abip man* (lit. village man), Christian versus ‘heathen’ – also come into play, with

7 Possibly derived from the French canaque or ‘local’, kanaka is used in many Melanesian pidgins, usually to denote backwardness, and to contrast individuals with those who have been educated in the image of Europeans (Biersack 2006; Clifford 2001; Maclean 2004).

many of the terms gaining currency as both self-designations and as derogatory terms for others. Kinship boundaries are also being redrawn. Given the 1974 LGIA, and the legislation outlining the SML and LMP agreements that must be made with customary owners, seeing like a mining company in PNG (cf. Ferguson 2005) must involve identifying (or inventing) bounded kinship groups, largely coterminous with bounded village territories, to whom royalties and compensation can be paid. Formerly flexible cognatic kinship structures have become more tightly policed and unilineal around Ok Tedi, as is the case elsewhere in PNG where NRRE has taken place (Gilberthorpe 2007; Gilberthorpe and Sillitoe 2009). In local usage, the ‘landowner’ category is, however, morally ambiguous. Local landowner villages are contrasted with apparently criminogenic ‘settlements’ (Goddard 2002:5–6) such as Seven Corner. Seven Corner has sprung up on the outskirts of OTML’s employee township Tabubil, and is largely populated by hopeful economic migrants from the Highlands or remote Mountain Ok regions, as well as by relatives of those employed by mine contractors, who are not assured housing in Tabubil like the directly employed mine workers. Landowners, however, are also portrayed as greedy and irresponsible in the national media, by expatriates working for OTML, and by those non-landowning Mountain Ok who have mobilized *wantok* (kin, or ethnic group) networks in order to invest heavily in formal education.

In addition to producing descriptions of the categories of difference that have emerged around the Ok Tedi development, I investigated how desires for different forms of development were linked to local actors’ attempts to either align or distance themselves from these categories of social difference. Finally, I aimed to apprehend some ways in which individual actors who self-identified as belonging to one of the social categories mentioned above anticipate the inevitable closure of OTML, scheduled officially for 2013 at the time of fieldwork.⁸ The substantial literature addressing Ok Tedi often investigates social, economic and environmental change at the village level (Banks and Ballard 1997b; Filer 1997). In the course of my fieldwork, I attempted to follow calls for actor-oriented approaches to studying development, which would involve investigations of the experiences

⁸ Although interviews with OTML staff revealed that closure dates in 2017 were being considered.

of individual actors, and not aggregated villages, to be combined with analyses of the cultural schema which influence perceptions of, and reactions to, development (Hill 1986:16–17; Long 2000). A review designed to situate the present work in terms of key literature on development and resource extraction is presented below, followed by details of the methodology adopted during fieldwork, and further details of the study site. Finally, the data and analysis are presented, organized thematically into four chapters.



Figure 5: Leaf of the taro (*Colocasia L. spp.* [Araceae]), the food of the Mountain Ok as prescribed by Afek. Photograph by Paul Gilbert.

Development anthropology and PNG

Development ideology and practice have been governed by a series of overlapping but competing paradigms over the last 60 years. Truman's Presidential Address to the United States of America in 1949 is often cited in histories of development as the moment when the linear, evolutionist, 'modernization' approach to development was made a clear and concrete policy aim (Cardoso 2007:105; Escobar 1995; K. Gardner and Lewis 1996). Truman laid out the distinction between developed, underdeveloped, and undeveloped nations and proposed the transfer of Euro-American political, social and economic organization (and associated technology) as the solution to alleviating the various social

pathologies of under- and undevelopment (on the language of social pathology in development see Escobar 1995; Harper and Maddox 2008). Echoes of Truman's threefold categorization can be found in Collier's (2008) assertion that the world can now be neatly divided into the developed, the nearly developed, and the failures of development (Collier's 'bottom billion'). Neo-Marxist anthropologists and Latin American *dependendista* scholars began to challenge the linear modernization approach in the late 1960s (e.g. Frank 1969), emphasizing the extent to which underdevelopment on the peripheries of the capitalist world system was in fact a function of successful development in the core. The notion of *permanent* underdevelopment has subsequently been challenged, but few scholars have convincingly suggested that the world system is *not* a zero-sum game (Hornborg 2009). Further, within the anthropological literature on mining, Ferguson's (1999) ethnography of the post-decline Zambian Copperbelt has delivered a death-blow to modernization theory, inverting its usual teleologies by showing that counter-urbanization followed urbanization, and de-industrialization followed industrialization. For the former workers of the Copperbelt, what is talked about and experienced is 'modernization through the looking-glass, where modernity is the object of nostalgic reverie, and "backwardness" the anticipated (or dreaded) future' (Ferguson 1999:13).

Despite the move away from modernization discourse among development practitioners (K. Gardner and Lewis 2000) and the rise of 'the new development orthodoxy' (Stirrat and Henkel 1997:67) based on empowerment, participation, and the incorporation of indigenous knowledge into development, many programmes which operate through planned interventions designed to improve 'basic' social and economic conditions (Pigg 1992:496) continue to encode a view of development as social *progress* (Cardoso 2007:105; Harper and Maddox 2008:45). In the case of social development or social investment programmes accompanying NRRE at Ok Tedi, this is certainly the case (see below). Gilberthorpe (2008:18–22) has suggested that NRRE-based development should be understood on its own terms, as distinct from development as it is usually conceptualized by anthropologists. However, orthodox economists do not draw any such distinction, associating NRRE with development as the achievement of 'Adam Smith's wealth of nations' (Filer 2007:139).

For Gilberthorpe the key characteristics of NRRE-based development are enclaved development (cf. Ferguson 2005; Hyndman 1997), necessarily limited local participation in development, and unspecified periods of interaction between mining firms and local communities (Gilberthorpe 2008:20). This latter characteristic is a product of what Biersack (2006:261) has termed mining's 'contradiction of capitalism,' whereby the resources which produce economic growth are depleted in the creation of that growth. This feature of NRRE is crucial to the argument presented below, given that the shape of community development projects can alter drastically — for example from 'basic needs' delivery to economic security programmes — if new mineral seams extending a mine's predicted lifespan are discovered (see Bury 2008:314–315 on Minera Yanacocha in Peru). A further characteristic of NRRE essential to understanding the development of difference around Ok Tedi is what Banks (2005) has termed 'hyperdevelopment', described as 'a mutated, enlarged version of what is considered normal...not a lack of what is commonly regarded as "development" [but] an enclave of overdevelopment in a sea of (relative) poverty' (Banks 2005:140). NRRE, through a combination of enclaving, limited mine-community interaction, and the generation of vast amounts of wealth in resource rich frontiers (Tsing 2000a:121) where there have been few previous encounters with development, produces an amplified version of the inequality that normally accompanies growth-oriented economic endeavours. In PNG, the form that this hyperdevelopment takes is unique; it is played out in the language of *kastom* and through the manipulation of kinship boundaries, and leads to unique expectations and responses to the prospect of mine closure.

At Independence in 1975, a dual legal system was instituted in PNG. Alongside English Common Law, as it stood then, customary law was enshrined in the constitution, as 'an open and uncoded field' (M. Strathern 2004:1). Postcolonial nation-building elites needed to create an anti-colonial narrative around which the nation of PNG could be imagined (cf. Anderson 1991:25–35, 192). The narrative they produced was based on a generalized notion of shared custom, rooted in no particular place (Otto and Thomas 1997:2), perhaps the only way to forge an imagined community in a state purportedly home to 800 linguistic

groups (Jorgensen 2007:57). This generalised, national set of customs, or ‘Melanesian Way,’ devised by the parliamentarian Bernard Nakarobi, is defined by Meg Taylor (former PNG ambassador to the USA and UN) in terms of a commitment to ‘participation, consultation and consensus’ (Taylor 1997:15).



Figure 6: Tabubil market square. Reference to HIV/AIDS was not frequent in the interviews I conducted, but where it was discussed, AIDS was associated with the ‘criminogenic’ settlements discussed above. Perhaps this reflects what Scheper-Hughes and Lock (1987) refer to as parallels in the experience of threats to the integrity of the soma and threats to the integrity of the body politic. Photograph by Paul Gilbert.

Claims about rights to royalties and compensation in PNG's mining sector must be understood in the context of this generalised notion of national custom, and the legal privileging of (loosely defined) customary claims to landownership. As well as enshrining customary law, PNG adopted the European notion that the state is a ‘paramount assertion of territorial occupation’ (Samson 2001:242–243), and thus that the state has the right to subterranean minerals. Whereas many states have attempted to replace loosely defined customary landownership with more legible systems of individual title (e.g. Caplan 1984), and orthodox economists promote individual title as a path to equitable economic growth (e.g. de Soto 2003:181), PNG’s nation-builders attempted to make state control of subterranean minerals commensurable with successful economic development and the persistence of customary landownership. The 1974 LGIA (discussed above) was designed

to achieve this goal, by ensuring that customary groups could participate in the NRRE path to development insisted upon by the World Bank. Kalinoe (2003), however, has gone so far as to suggest that the Act (along with its successors) has become a tool for *creating* supposedly customary Incorporated Land Groups or ‘clans,’ rather than a means by which Melanesian social groups can enter the global economy on traditional terms (Filer 2007:161; Gilberthorpe 2007; Weiner and Glaskin 2007). There is thus a need to question what appears customary in Melanesia (Carrier 1996), and understand how visible modes of kinship organisation might be responses to incorporation into the state and encounters with NRRE.

It is indeed necessary to be cautious of interpreting claims that actions are customary or *kastom* in PNG. The Tok Pisin term *kastom* appears to denote cultural attributes that act more as symbolic boundary markers than as any ethos guiding group interactions (Kirsch 2004c:34; Sillitoe 2000:xviii). The most productive line of research, then, may be to investigate how notions of *kastom* are *used* in contemporary PNG, to create (or facilitate the bridging of) social differences and inequalities, and to negotiate access to desired aspects of development (Keesing 1996). This is the approach I adopted for my research. However, anthropologists need to be equally careful when handling terms like modernity and modernization. The above literature review has been critical of (now discredited) modernization approaches to development. I aim to avoid, however, some of the excesses of the (nonetheless insightful) ‘development as discourse’ research programme, which runs the risk of presenting any desire for development that resembles the language of progress and modernization as the product of a colonization of minds. The active construction of local desires for development needs to be carefully considered. When using the term ‘modernity’ I follow Long (2000:4) in treating it as a condition whereby social actors who share cultural perspectives adopt an awareness of the past as a different time period,

particularly one to which symbolic links can be either emphasized or played down.⁹ In PNG, as might be expected from the above, this symbolic articulation of temporal links often takes place through the language of *kastom*, and the re-organization and negotiation of kinship structures.

Fieldwork and methodology

During 2008 I conducted one month's fieldwork in and around Tabubil, a purpose built mining town on land leased from the residents of Wangbin village under a LMP. Fieldwork was largely focused, however, on a village several miles south of Tabubil. The village, Migalsim, is divided into two sites: Old Location (OL) and New Location (NL). Migalsim OL is largely made up of residents who consider themselves as belonging to the village of Bolangun, some days' walk to the west, but who began to move closer to the mine in the 1970s. The Bolanguns are not censused to any LMP or SML agreements, and thus benefit from neither royalties nor preferential employment. The Migalsims who receive royalties under a LMP for the hydro-electric plant running on their land, have moved to the New Location, closer to the plant from where electricity can be run to their largely permanent houses.

Forty-two discursive interviews were conducted with mine and mine service (e.g. hospital) employees, local politicians, and teachers in Tabubil. In addition, interviews were conducted with residents of Wangbin, Migalsim OL and Migalsim NL. For Gobo (2008:23–24), discursive interviews can be differentiated from ethnographic interviews firstly on the grounds that the interviewer and interviewee may have no previous relationship, and secondly because the interviewee is given space to structure their contributions around their 'own personal schemas'. In ethnographic interviews, by contrast, ethnographers attempt to elicit the thoughts and beliefs underlying practices

9 Graeber notes that modernity is often unhelpfully taken to refer to a combination of 'English laissez faire economics, and French Republican government, despite the fact that the two never occurred together: the industrial revolution happened under a bizarre, antiquated, still largely medieval English constitution, and nineteenth-century France was anything but laissez faire' (2004:42).

which they have previously observed, from fieldwork participants with whom they have already-established relationships (Gobo 2008:190). Given constraints on time, experience, and language, what Gobo might consider to be ethnography in the strict sense (which would entail learning the code of one's study participants¹⁰ and gaining an experiential, *explicitly observational* knowledge of their daily practice) was not conducted. An interpreter was used when participants spoke in Tok Pisin (Melanesian Pidgin) or Faiwol (a Mountain Ok language).¹¹

I gained introduction to the individuals whom I interviewed, and to my host family and the interpreters who assisted me, through contacts made by Dr Emma Gilberthorpe during her fieldwork in the area (see Gilberthorpe 2008). The effect on my fieldwork of being hosted by an influential local man, belonging as he did to a particular kin group, and holding a high socioeconomic status, cannot be discounted. All anthropological accounts are necessarily 'temporary and temporal,' and what is presented here cannot be understood as more true or accurate than accounts that might be produced directly by local people (Cohen 1992:340). Nonetheless, an effort is made to encompass, rather than simply stand beside, those accounts as they were given to me (Mosse 2006:950). It is though, particularly important to acknowledge the partiality of anthropological knowledge in PNG, where local residents are increasingly involved in producing knowledge about their own societies and cultures (A. Strathern 1985), and even more so in a situation where the definition of social group membership (the subject matter here) has a bearing on access to economic resources

10 The term 'participant' is used to describe those with whom interviews were conducted. This term was chosen in an effort to overcome the positivist implications of using terms such as respondent/ subject/ informant, and to avoid the associated notion of research subjects as one-dimensional individuals who do not influence the production of anthropological data (Amit 2000:3).

11 Interpreter use and its outcome on material collected are not much discussed in anthropology (Borchgrevink 2003). Nonetheless, it did become clear to me during the course of fieldwork, when I interviewed one participant twice using two interpreters, that the choice of interpreter may influence the quality of field data. I cannot deny that the account here is partial and could be improved by long-term fieldwork underpinned by linguistic competence.

(Layton 1985). With this latter point in mind, I have anonymized all the participants from whom I quote and to whom I refer. This should not be read as an attempt to insulate myself from criticism; rather it stems from recognizing that the views of some participants, if made public here, may damage their own relationships, and their claims to kinship and royalty payments. In addition, as Mosse (2006) notes, when knowledge produced through a (however fleeting) fieldwork relationship is re-presented, abstracted from the context in which it was produced, it may not only cause offence but appear disconcerting to those actors.

The rest of this study is organized into four sections and a conclusion. The first section outlines the changes in kinship reckoning brought about by NRRE development at Ok Tedi. The second section situates these changes in terms of a desire for development that is based on a particular view of the past, and a sometimes limited awareness that the benefits provided by NRRE-development are finite. In the third section, the emergence of socioeconomic inequalities around Ok Tedi is discussed in detail. In the fourth section, these changes in kinship organization and inequalities are related to the failure of OTML's community development programme coordinators to engage with locally constructed desires for, and understandings of, development.

Cousin-brothers, boundaries, and *kastom*

The residents of Migalsim and Wangbin tend to emphasize patrilineal clanship, involving postnuptial virilocal residence, as *kastom*, or the customary mode of social organization. This is notable considering the suspicion with which anthropologists have come to treat applications of descent theory in PNG (Barnes 1962; Carrier 1996; Sillitoe 1999; Wagner 1974), and the suggestion by Jorgensen that some Mountain Ok groups 'have no clans' (2007:63). Taken together, the contemporary use of kin terminology, the claims made about customary kinship practices, and the actual relationships which are upheld or denied by Mountain Ok people in the Tabubil area suggest that new forms of social organisation are emerging in response to the presence of the mine, and the legislation outlined above. Furthermore, the patterns of social organization emerging appear to reflect

an internalization of a generalised national *kastom*, and not simply a continuation of practices rooted in tradition.

Detailed ethnographic studies of the social organization of Mountain Ok groups, and of how such organization has been affected by the Ok Tedi mine are few in number (notable exceptions Jorgensen 2004, 2007). Some existing ethnographies are limited in that they refer to groups distant from the mine and are based on fieldwork undertaken before the mine began large scale production between 1984 and 1987 (e.g. Barth 1987). Jackson's (1982) descriptions of kinship and residence patterns among the Wopkaimin (a Min subgroup to which Wangbin, and possibly also Migalsim and Bolangun belong) were written before larger royalty payments were negotiated at the 1989 Development Forum, and do not account for the effect such payments may have had on kinship organisation.

Furthermore, in R. Jackson's monograph the Wopkaimin are presented as a definite and bounded category of people (1982:18–20), contrary to my findings during fieldwork. The historically contingent nature of the Wopkaimin and other 'Min' subgroups, as outcomes of processes of warfare and migration, is not considered. The notion of strictly bounded Mountain Ok descent groups has recently been challenged by Barth (2000:17–22) and D. Gardner (2004:113). Don Gardner notes that idioms of cognatic descent found throughout Mountain Ok groups (and PNG) should not be confused with strict principles of descent, which would not have allowed the flexibility of *miit* (cognatic descent group) boundaries that has been recorded in pre-mine ethnography (cf. Weiner 1988:36–37). There are thus grounds to tread carefully around current claims that bounded patrilineal landowning groups are 'customary' and 'from before the mine' (Silas, male, 40s).

Attempts to elicit kinship information from residents of Migalsim, Wangbin and Tabubil were challenging. The widely used English terms 'cousin-brother' or 'cousin-sister' were often the only kinship terms used to describe relationships that I enquired about. Efforts to gain more precise details of particular relationships were halted with the explanation that the person in question was related to a research participant on the 'mother's side', 'father's side', or both. The exact relationship beyond a 'side' was not always made apparent to me, even if two parties identified themselves as relatives or shared a household. This is

undoubtedly, at least in part, a function of the short period of fieldwork upon which this study is based. Despite participants not always revealing exact genealogical connections to me, kinship relationships that cut across village and clan boundaries were readily identified. For Moses,¹² a man who identifies himself as being from Bolangun, a senior man from an SML village, Boka, was his ‘other father’. This relationship was based on an unspecified path traced between Moses maternal grandmother and Boka’s father, both of whom were born in Bullem. Peter, Boka’s son-in-law born in Enga province, was quick to identify Moses as his ‘cousin-brother,’ again without being able to identify an exact genealogical connection, or path of relatedness.

The readiness with which cross-village and inter-provincial kinship links were made visible may in the above case be related to the status of Boka, as the son of a *luluai* or colonial census-post leader (Biersack 2006:266; McKeown 2001). The desire of the young Peter to be associated with Moses, a local politician, may have similar influences on negotiating relationships. The emphasizing of such connections was not, however, restricted to apparent attempts to negotiate social status. Mark, a self-declared Bolangun, was one of many Tabubil-area residents who readily identified links between villages, and used their knowledge of migration histories, to minimise the differences between supposedly discrete village groups:

The clan at Migalsim is Imgar, at Bolangun it is Alkalin... There’s no difference. Ancestors from Telefolmin came through Bullem then came further and that’s us [Bolangun]. Cousin-brothers [of Bolangun] came later to settle at Migalsim. We have a mixture. We are Faiwol so we intermarry.
(Mark, male, early 30s)

This trend towards minimising differences between all Mountain Ok people, specifically by reference to common geographic origins (being from Telefolmin), was often voiced as part of claims that royalties from the mine should go to all local ‘Min’ people, and not just a selected few villages. Other groups in the Tabubil area, particularly those who *do* receive

¹² All names have been fictionalised to preserve anonymity.

royalties, tended to use both migration and mythico-historical narratives, along with a notion of patrilineal *kastom*, to defend their claims that they were exclusive ‘landlords’:

After the gifts were shared at Telefolmin, we all went to different places and claimed the land, the land was won through troublefights...they fight on the land and they become the owners of the land (Gideon, male, 40s).

The claims made above, and those made by other royalty-receiving landowners with whom I spoke, rested on oral histories that presented sustained colonial contact in the 1950s as an end of history — coinciding as it did with the end of migration and inter-village conflict (Burton 1997:31) — and thus as the basis for bounded and rooted village identities. No doubt colonial administration practices, such as the installation of *luluais* and the resettlement of groups in fixed villages did contribute to the hardening of village boundaries (Wagner 1974). Nonetheless, the main justification given for exclusive rights to royalties being vested in one village or clan was the presentation of landowning groups as bounded and patrilineal, underpinned by appeals to *kastom*.

Asking about a participant’s village of origin, and subsequently about the movements and marriages of their ancestors, led to insights about how notions of kinship defined as elements of *kastom* were in fact ‘official,’ rather than ‘practical’ forms of kinship (Bourdieu 1977:34). Bourdieu’s analogy, in which lines drawn on a map represent official kinship, while actual paths trodden or neglected represent the outcomes of negotiating practical kinship relationships, is particularly apt when applied to contexts around NRRE-developments in PNG, where efforts are made to identify bounded kin groups to whom royalty payments can be made (Bourdieu 1977:38; cf. Kalinoe 2003).

Below I present two men’s accounts of the clan and village affiliations through which they construct their identities, combined with their descriptions of ancestral movements and marriages, which exemplify the ways in which official kinship (*kastom*) and practical kinship work in the Tabubil area. Matthew presented himself to me as ‘100% Bolangun,’ by virtue of his father’s adoption into Bolangun, and his mother’s birth in Bolangun. Having

presented himself as a 'Bolangun' and thus not eligible for royalties distributed under the LMP, Matthew invoked a right to inclusion in the royalty payments made to Migalsim New Location. This right was based on a Migalsim 'leader,' and Matthew's mother having (not necessarily shared) ancestors from Imigabip village. However, when I asked Matthew how he felt about not receiving royalties, he stated that 'Well, traditionally, mother's side has no rights, father's side has rights' (Matthew, male, late 20s).

In a similar fashion, Gordon, an OTML employee born in Tabubil to parents from a western Mountain Ok village, claimed that he was from one of the SML villages. Gordon claimed that he had a right to receive royalties that are paid to this village, and merely did not because of an administrative error. The details he gave of his ancestors' residence and marriage patterns suggested that he traced this link bilineally, through his father's mother's father. Nonetheless, he stated that 'actually, in our culture, we go to our father's clan' (Gordon, male, 30s) Like many others Gordon also stressed that it was *kastom* for women to move to a man's village after marriage. Notably, the idea that patrilineal descent is the customary basis for recruitment to kin groups, and postnuptial virilocal residence is a customary practice, was expressed not as specifically local, but as a 'PNG *kastom*,' by those I conversed with, whether born in the Highlands or the Mountain Ok area.

The ethnographic record for the Mountain Ok shows some variation in kinship reckoning on an east to west gradient, with eastern groups placing more emphasis on patrilineality as a mode of recruitment (Barth 1987:11). Ethnographies of western Mountain Ok groups closer to the mine site suggest that social groups were based on flexible cognatic principles of recruitment (D. Gardner 2004; Hyndman 1997:3; Jorgensen 2004:80–81). Under these principles, residence was a more significant determinant of identity than descent, and individuals from other villages were happily incorporated into groups that relied on large populations for defence in warfare, and land-extensive subsistence practices (Craig and Hyndman 1990; D. Gardner 2004:110). The continuity of fluid group boundaries and cognatic principles of descent can be seen among western Mountain Ok in the form of

‘practical’ ways to reckon kinship described above.¹³ Yet the increasing ‘official’ emphasis on patrilineal kinship and virilocal postnuptial residence as forms of *kastom* does not appear to be rooted in pre-mine local practices. Rather, this form of *kastom* may reflect the gradual internalization of a PNG national consciousness which undermines place-based notions of identity (Kirsch 2004a:199).

Most significant to the anthropology of development is the extent to which this emergent notion of an official patrilineal virilocal *kastom* may reflect new property relations, introduced by encounters with NRRE-based developments which need to compensate visible and bounded groups under the postcolonial legislation designed to ensure a Melanesian Way to development. Cutting social networks in this way, through the payment of royalties and compensation (and the preferential allocation of employment and education opportunities), isolates those who would formerly be considered cognatic relatives and creates opportunities for inequalities to emerge. The processes that shape desires for development, which have contributed to the tightening of landowner kin group boundaries, must therefore be investigated.



Figure 7: Migalsim Old Location. Photograph by Paul Gilbert.

¹³ This view is rooted in an ideology of conception whereby male and female reproductive substances combine in equal parts to create the bone and blood of the child respectively (Barth 1987; Jorgensen 2004).

Modernity, material goods and God

The new official patterns of kinship organisation that have come about in the context of a NRRE development involving royalty payments to ‘customary’ landowners must be understood in terms of a culturally specific desire to access forms of modernity and development accessible through these royalty payments and the NRRE-associated infrastructure (Jorgensen 2006:243; Golub 2006). An emotionally charged desire to become ‘developed’ has been widely noted by anthropologists studying many Melanesian social groups (Foster 2005:215). In the Tabubil area, such desires are partially structured by tangible practical needs and partially by encounters with forms of Christianity. Most significant are the ways in which local valuations of pre-mine Mountain Ok history, and perceptions of contemporary material and social conditions, have come to be shaped by a particular shared understanding of (and desire for) ‘modernity’. To apprehend these desires it is necessary to go beyond anthropological critiques which view non-western desires for development and modernity simply as a result of western hegemony and the colonization of minds (Hobart 1993:3).

Anthropologists of development have increasingly turned their attention towards post-structuralist critiques of development practices and institutions.¹⁴ These critiques involve deconstructions of the rhetoric and discourses used by financial institutions such as the World Bank (Ferguson 1990:86), or by national governments (Fairhead 2000), to define those who would be developed as ‘backward,’ and as embodying social pathologies that can only be solved through a reorganisation of social and economic life along western lines (Escobar 1991:667). The insights generated by these critiques are valuable in that they draw attention to extensions of state power that often accompany development policies

¹⁴ The distinction between development anthropologists and anthropologists of development was proposed by Grillo (1997:2) in an effort to highlight the difference between applications of anthropology to development and anthropological critiques of development. Here I use the term ‘anthropologists of development’ to describe anthropologists who have clearly adopted a critique-based approach to engaging with development. However, as Gow (2002) and K. Gardner and Lewis (1996) discuss, this rigid distinction between anthropologists of development and development anthropologists may no longer be relevant.

supposedly implemented with local beneficiaries in mind (e.g. Kirksey and van Bilsen 2002:846–849). These critical approaches do not, however, address the social and material situations locally constructed as development ‘problems,’ or local framings of modernization (or other forms of development intervention) as the way to ‘solve’ such problems (K. Gardner and Lewis 2000:16; Agrawal 1996; Rhoades and Nazarea 2003).

In PNG, the Tok Pisin term *kamap* (grow) is often used to describe a desired set of changes involving access to consumer goods, permanent houses, tin roofs, and employment in the market economy (Kulick 1997 cit. in Orlove 2002:229–230; McKeown 2001:107). These desires are often understood to be responses to Melanesian encounters with colonial agents or missionaries, who could provide easy access to tinned foods and knowledge of an apparently powerful Christian cosmology (Dundon 2004; Robbins 2005b:48). Such culturally and historically constructed, context-dependent desires for development¹⁵ have implications for how the changes brought by Ok Tedi are understood, and why local reckoning of kinship has responded to royalty payment schemes in the way described above.

While the English terms ‘development’ and ‘changes’ are used more often than *kamap* in Tabubil, by both Faiwol and Tok Pisin speakers, images of the same set of transformations are invoked. In addition, development around Tabubil is understood in terms of heightened access to ‘basic services,’ defined as education, healthcare and roads. In this regard, local constructions of development also echo the standard institutional definitions

15 Compare Pigg (1992) on *bikās* in Nepalese national development policy, which frames villagers lacking *bikās* as backward and problematic, but structures a desire among villagers to have “more *bikās*” (1992:505–507), which can be indexed by no longer having to carry heavy loads. See also Gardner and Lewis (2000:17) on development as *unnoti*, desired by Bangladeshi rich and poor alike; Green (2000) on *msaada* in Tanzania, involving a desire for personal improvement not concordant with the desires of development workers; Orlove (2002:232) on the *lack* of desire among Quechua speakers in Peru for *desarrollo*, the Spanish word for development used by the government, as a result of total failure of all projects undertaken in the name of *desarrollo*.

of development as progress-oriented planned change leading to improvements in education, healthcare and utility provision (Pigg 1992:496; Grillo 1997). Yet simply treating these answers as stereotypical adoptions of modernization discourse, and thus as unhelpful (e.g. Francis 1992:97), overlooks the ways in which such stereotypical answers blend with the biographical narratives of actors placed differently in the Mountain Ok social world, with regards to gender, age and access to royalties.

Eleanor, like others of her generation, presents her move from Bolangun to Tabubil in the 1970s as an inevitable corollary of her husband's decision to move, and as part of a desire to access consumer goods like tinned fish, which were available in 'other places like Kiunga [which] had already been developed'. Not only did Eleanor see development as desirable in material terms, but her position in the current Mountain Ok social world as a widow influenced her perceptions of the social consequences of development. An OTML contractor's employee for thirty years, Eleanor can now:

...go to work and I'm fine, without any men supporting me... Before, it was hard when your husband is dead, but today it's less hard. (Eleanor, female, late 50s)

To associate the coming of the mine with improvements in pre-mine gender inequalities was also expressed in the opinions of some Migalsim Old Location residents, who suggested that the relocated village was 'better' than (the original site of) Bolangun because there was no men's house which would prevent the sharing of meat between male hunters and women. This attitude resonates with the widely held local perception that the coming of Christian missions, which encouraged the establishment of conjugal households and ended supposedly endemic witchcraft activity, was a positive and significant factor in bringing development to the Mountain Ok, as has been suggested elsewhere (Robbins 2005b; cf. Biersack 2005).

Development in the Tabubil area is therefore often seen in terms of access to material goods, a cash economy, and both the spiritual and material (i.e., building of churches)

elements of Christianity. The regional encounter with labour and commodity markets, and with western-style healthcare and education, is due to the presence of Ok Tedi, without which the hospital may well receive no funding and the state schools may cease to run.¹⁶ The lack of specified time periods over which resource extraction projects bring local people into contact with development is characteristic of the industry, as noted above (Gilberthorpe 2008:20; Bury, 2008). Constructions of development in the Tabubil area can therefore be understood more clearly if perceptions of the future after mine closure – as well as valuations of the past and present – are considered.

Attitudes towards the social, cultural and material life of participants' pre-mine ancestors tended to be derisive in and around Tabubil. Utilising a framework concerned with the local construction of the past (Layton 1989:5, Robbins 2005b:50), the coming of Christianity and 'basic services' with the development of Tabubil as a township appeared in the words of my informants to act as the pivotal historical moment which separates current 'modern life' where people 'have already seen cash' from pre-mine 'heathen' life (Samson, male, 20s). Combined with the awareness that the mine and the benefits it brings have finite lifetimes, this perception of pre-mine life has led to a genuine fear of the consequences of mine closure, should roads, education and health services cease to be maintained by either OTML or the government (see Gilberthorpe 2008:50–53; R. Jackson 2002; King 1997). This feeling is clearly expressed in the following passages from interviews:

It will be very poor for us, like our ancestors. I don't want to be like ancestors after the mine leaves town. We need a better life. Better living. Good food. Good house. Some clothes. To move around. Port Moresby. [To] see other places. (Silas, male, 40s)

People from Oksapmin and Telefolmin, I don't know how they will live. In terms of health I think most of the people will die. You cannot go to Vanimo

16 This was both a concern expressed by local residents and an opinion expressed by administrators at the public and private schools, and the health centre in Tabubil.

[the nearest hospital to Oksapmin], it is K600 to fly one way, and people cannot afford [it]. (Esther, female, 20s)

The widespread fear of returning to an ancestral state after mine closure appears to be based on the same imagery drawn upon by expatriate mining employees, OTML executives (Higgins n.d.), and post-colonial elites (Burton 1997), which suggests that the Mountain Ok region was particularly harsh, impoverished, and characterised by ever-present malnutrition and ill-health. It is not only a negative image of the past that structures this fear, but a view of the ‘modern day’ as part of an inevitable move towards social, material and *moral* improvement.

Marshall Sahlins developed the concept of ‘humiliation’ as part of his ongoing project to incorporate considerations of indigenous agency and cultural continuity into accounts of change brought about through encounters with capitalist markets and Euro-American forms of sociocultural life (Sahlins 2005:39; Robbins 2005a). In his work, Sahlins reacts against the common depiction of development as an uncontested and non-negotiable ‘penetration’ of modern social and economic forces into supposedly isolated and primitive societies (Tsing 2000b:336). His concept of humiliation is an attempt to explain why societies that supposedly use contact with capitalist economies to practice ‘developman’ – his term for investing market-derived wealth into existing sociopolitical and cosmological systems (see Sillitoe 2000:59–65) – come to desire ‘development’, which involves adopting European social structures and cultural schema (Sahlins 2005:23–24). The locally widespread view that encountering development and becoming modern is an inevitable process which, if halted, would cause great ‘suffering’ as Mountain Ok people were forced back to ‘traditional’ lives, suggests that humiliation may provide a good framework through which to understand local desires for development in Tabubil. The statement by William that, ‘before the mine we were like cannibals; we ate man, wolves, anything. When the mission came we changed our culture. It was wild life before’, suggests that the cultural awareness encouraged by colonial missionaries among the Mountain Ok, as part of the creation of Christian persons who must reflect upon their sinful nature (Robbins 2005b:47), led to humiliation, and a distorted view of their own past (cf. Comaroff and Comaroff

1988:6, 19). Notably, in William's statement above, 'we' specifically refers to the Mountain Ok, and not to all from PNG. He made this point clear with reference to an Enga-born employee of a mine contractor, present during our conversation.

There are weaknesses in Sahlins' theory, however, in that he falls victim to the very teleological logic of the modernisation *and* Marxist dependency theorists which he critiques. By suggesting that humiliation is the *only* way by which societies can come to desire western forms of modernity, he overlooks the possibility that encounters with capitalist markets – such as through royalty payments from Ok Tedi – can elicit responses that are not based on Euro-American social organisation. Encounters with development may in fact *create* situations of marginalisation in which neither developman nor development can be achieved (e.g. Polier 1996; Errington and Gewertz 2005). A closer examination of sentiments regarding the social and moral changes brought about by Ok Tedi and the accompanying royalty payments suggests that humiliation does not provide a full explanation. William, for example, went on to describe a local leader as a highly respected man *because* of his experience of 'customary' initiation:

Initiation stopped after we saw only one God. Before, we would fast for one month and then speak to spirits; you'd talk to a pig and the pig comes. [His] talk is mature, wise, not like those without initiation. (William, male, early 30s)

Similarly, an observed conversation between an Elder in the Jehovah's Witness community of Tabubil, and an ordained Baptist minister, centred on how resurrecting the *haus tambaran* or men's initiation house, was the only way to 'get our society back,' and overcome the 'law and order' problems that are associated with development in public discourse and the media throughout PNG.

Development in Tabubil must be understood in relation to the biographies of individual actors, but also to the shared cultural schema, including a negative view of the past and a fear of returning to the past, that shape individual perceptions of the changes brought by the mine. Sahlins' concept of humiliation appears to account for the ways in which many

Melanesian groups have come to see their past as a negative legacy to be overcome. Nonetheless, aspects of culture and *kastom* which are no longer directly experienced, like initiation and shield painting, are highly valued. This suggests that the attitudes to the past which structure desires for development in the Tabubil area are more complex. Mountain Ok with whom I conversed often spoke of their current situation as ‘half and half,’ or ‘half modern, half culture,’ a phraseology in which modernity is emptied of culture. Many thus view themselves as in the process of moving towards modernity, but there is a growing awareness that modernity might disappear along with Ok Tedi in the next few years. The way the past is valued means that there is not a desire to return to pre-mine life, although the idea of *kastom* still provides a language through which attempts can be made to access royalties and development. Nonetheless, inequalities are emerging through the divisions created by newly bounded kinship groups. These divisions and inequalities are themselves premised on divergent valuations of pre-mine life and modernity.



Figure 8: Poster produced by a local artist on behalf of OTML. Note the moral position of illiteracy in this classification.

Wantoks, working men and migrants

The hardening of formerly flexible boundaries between kinship groups around Ok Tedi has led to inequalities in access to education, employment and money. Inequalities in the Ok Tedi area, as elsewhere in PNG, involve the articulation of symbolic differences as well as disparities in access to money and material goods (Gewertz and Errington 1999:2; Biersack 2006; Maclean 2004). An emphasis placed on the ‘nuclear family’ as part of the path to modernity, and the rejection of claims made on financial resources by *wantoks*, is used by many in the Tabubil area who are educated and employed to set themselves apart from locals practicing ‘a more indigenous style of living’ (Simon, male OTML manager, 50s). Thus while many in Migalsim (OL) and other non-royalty receiving villages rely on their *wantoks* to receive an education and pay for ‘brideprice’,¹⁷ a large number of skilled migrant labourers who have married (residing uxori locally) into landowning, royalty-receiving groups, have no intention of staying and supporting their affinal *wantoks* after the closure of Ok Tedi. Mine closure (or scaling down) may begin as early as 2013 and departure of these skilled labourers may have a severe impact on the sustainability of local development (Sillitoe 2000:134; R. Jackson 2002).

Hyndman (1997:3) suggests that there was a total absence of class-based hierarchy among the Wopkaimin before men began selling their labour power to the Kenecott prospectors in the early 1970s. Notable men with some achieved authority did, however, exist in pre-mine Mountain Ok social life. *Kamokims* (Hyndman 1997:7) or *kamoks* (D. Gardner 2004:109) were not the ‘big men’ of classical Melanesian ethnography, in that they did not attain prestige through successful manipulation of sociopolitical exchange networks (Jorgensen 1991:256–257). Rather, Mountain Ok *kamoks* can be understood as ‘great men,’ who may be noted for activities as diverse as warfare, gardening or ritual activity, and not merely exchange (Jorgensen 1991:257). While certain men could achieve status and influence through skill and prowess in various spheres of social and economic life, and in some Mountain Ok groups there were inequalities in access to ritual knowledge (Barth 1987:12),

17 Although bridewealth is now the more commonly accepted academic term for transfers of wealth made upon marriage from a man’s family to a woman’s, brideprice is the term used widely in PNG.

anthropologists have argued that such differences in status do not constitute differences in class (i.e., differential access to means of production or control over one's own labour power).

Sillitoe (2000:105–123) suggests that flexible social boundaries, along with customary land tenure practices which prevent the alienation of productive resources and exclusive receipt of rent or capital gains by individuals, militate against the formation of class structures in PNG (cf. Marx 1982:19–21). Foundational to the egalitarian nature of many societies in PNG has been the fluidity of group boundaries, the ease with which migrants are incorporated into social groups, and the ability to easily leave an area under the influence of a particular big man (Sillitoe 1999; Langlas and Weiner 1988). It is apparent in the Tabubil area, as in other areas exposed to resource extraction (Gilberthorpe 2007), that kin group boundaries are not as flexible as they once were. The extent of these inequalities created through NRRE-royalty distribution systems are such that Keesing (1996:162) has suggested Karl Marx would be struck more by emergent classes than by a diversity of cultures were he to travel the Pacific today. In PNG one of the most significant symbolic markers of status is access to western-style formal education (Gewertz and Errington 1999; Maclean 2004). The association of illiteracy with criminality exhibited in Figure 8 above demonstrates the contemporary significance of formal education for the construction of 'modern' identities in and around Tabubil (see below). Access to education is also a marker of emerging differences in *class* around Tabubil, as it is only the few who receive royalties or are employed in senior positions by OTML that are able to educate their children, and provide them with an opportunity to enter waged employment.

Many in Tabubil recognise that receiving a formal education *before* encountering the labour markets and legal agreements that accompanied Ok Tedi would have placed them in a position to direct the impacts of the mine towards more desirable outcomes (Gilberthorpe 2008:48). Education is still considered to be one of the most important elements of development as it is locally conceived:

Literacy I feel it is an important tool for development. I just give an example here, when the mine started in Tabubil, most of the people were illiterate, so they weren't expecting changes....In the villages, people get the compensation...once they get the money they don't know how to look after the money, so they spend it on beer, they do whatever they wish for, then at the end of the day they look for money to borrow – these are some of the things that have been happening. If they were literate they wouldn't. (Esther, female, 20s)

In the statement above, a local literacy coordinator born in Oksapmin and educated at the University of PNG, makes explicit the connections that many in Tabubil draw between receiving a formal education, the exposure to a monetary economy, and the moral improvements that are thought to come with modernisation (Figure 8). Education is seen as a path to development, such that the concerns expressed in Migalsim (OL) over 'Bolangun as a group...not producing many educated people' (Mark, male, 30s) are based on the notion that educated individuals will return to their natal village and 'bring development' including roads and other 'community projects' (Benjamin, male, 40s).

The high status accorded to individuals who have completed tertiary, western-style education has been shown to alter status hierarchies elsewhere in PNG, as the need for leaders who can speak the language of development becomes apparent (McKeown 2001). In Migalsim, educated men gain status and authority possibly equivalent to that of earlier *kamoks*, and in some cases use this status to access royalty payments. Timothy, a resident of Migalsim NL, receives royalties while his half-brother does not, although both the brothers' mothers were in fact born in Bolangun. The difference between the men appears not be found in their genealogy, but in Timothy's possession of a tertiary degree (an analysis that was also held by several local interlocutors). Timothy has used the status that derives from an association with modernity in the form of formal education, to manipulate kinship boundaries and access monetary wealth.

For most Bolanguns, as well as those from Bolovip and Oksapmin living near the mine, preferential employment and educational arrangements are not forthcoming, since none of these villages are recognised as landowners entitled to such benefits under the 1992 Mining

Act (Mawuli and Sanida, 2000). Reliance on *wantoks* is thus essential if formal education, which would bring access to employment, cash and the moral world of modernity, is to be completed:

That's because of the monetary economy, we want to have money. That's the driving force behind why many Oksapmins want to be educated... We have a Melanesian culture. When I went to school it was not my father who paid all my school fees. It was my cousin who is already working. So I have an obligation to pay their children's school fees. (Martin, male, 30s)

The need for reliance on cousin-brothers and other *wantoks* can be illustrated by the fact that (in 2008) employees of certain OTML contractors received K200 per fortnight while fees at the Tabubil state high school were K950 per annum. For 'subsistence' gardeners in Migalsim (OL), the cash income secured through selling vegetables is not sufficient to pay for school fees. Access to education not only allows access to development in the form of paid employment and expertise, but is the only path by which non-landowning Mountain Ok can hope to raise the large sums of money required to contribute to their kin's bridewealth payments, and secure contributions to their own (Fieldnotes). Without *wantoks*, marriage will be impossible for many in Migalsim (OL), since the landowner villages have caused an inflation of bridewealth, a phenomenon that can be observed elsewhere in PNG (Strathern and Stewart 2000; Jorgensen 2006:244).

The reliance on *wantoks* for opportunities to receive an education, enter the labour market, and even to contribute to reciprocal relationships which could determine a Mountain Ok man's ability to marry, is contrasted by senior OTML employees' emphasis on the importance of the nuclear family. Several PNG 'national' (i.e., those who construct themselves as non-local cosmopolitan citizens of PNG) OTML engineers, managers, and their spouses suggested that demands for financial support from their kin in the Highlands or coastal provinces were 'their own problem' (Simon, male, 50s). Statements that only 'biological kin' up to 'uncles' would be supported financially were common (Patricia, female, 40s). An explicit link was often made between education, morality and reliance on *wantoks*. Reluctance to distribute money to *wantoks* is not only seen in financial terms, but in terms analogous to those of early modernisation theorists who viewed culture and tradition

as hindrances to development (Arce and Long, 2000:6).¹⁸ A teacher at Tabubil High School who drew a contrast between himself, as a member of the members-only Tabubil Gazebo Club, and ‘*kanakas*,’ or uneducated ‘bush’ people declared a ‘belief’ in the nuclear family. His reasons were given as follows:

Ah, it’s cheaper. We are getting towards the system like the developed countries where it gets too expensive. That’s my belief from what I’ve learnt. That it’s no longer a belief or a *kastom* in this country where you need children if you are fighting, this no longer exists. (Francis, male, 50s)

These statements reflect the attitude found in Tabubil and PNG that *kastom* is not only an important resource on which to build one’s identity (Sillitoe 2000:xviii), but an impediment to modernisation and development when such *kastom* is ‘too ancient’ (Chief Justice Amet 1993 cit. in Kalinoe 2004:72; cf. Knauff 1999:13). *Kastom* is simultaneously something that confounds access to modernity, and that which is to be valorised as the foundation for an increasingly national identity, as school celebrations of *kastom* dances from all over PNG (Figure 9) affirm.

Formal western education is thus valued by Mountain Ok and those from other parts of PNG as a path to development, and having education can confer social status as well as provide access to economic resources. Perhaps the most significant link between education, kinship and development is the manipulation of official (patrilineal, virilocal) kinship boundaries to allow educated men from the Highlands to marry landowning women. Treated with disdain and frustration by some non-landowning Mountain Ok with whom I spoke, the apparent preference among certain landowners for marrying migrants, whose *wantoks* may move to Seven Corner and are perceived as a strain on the resources provided by development, has significant implications for sustainability. Many migrants who have married landowning women have invested in productive cash-crop land in the Highlands,

18 Such views do, however, live on in certain forms of social capital research. Here the problems of culture are recast as the problem of the ‘institutional logic of tribal societies,’ which must be broken in order for generalized norms of trust to emerge in the marketplace, thus facilitating development based on the pursuit of rational self-maximization (see Hart 2002).

and hold qualifications which will allow them to work elsewhere in PNG when the mine closes – something that several I spoke with plan to do. Not only does this involve the potential for a loss of skills, but some of the reasons given for migrants not wishing to stay after mine closure reflect the view that the Tabubil area has ‘nothing for us’ without the mine (Johnny, male, 40s). This same view that educated people are modern, and belong to a different social place and time compared to locals without a formal education, has consequences for the interactions between local people and OTML community development and health workers.



Figure 9: Oksapmin war dance performed at Tabubil High School, on a day that was ‘all about culture.’ Cultural dances have been compulsory elements of PNG curricula since 1967 (Voi, 1994:87-8). Photograph by Paul Gilbert.

Miscommunication between the mine and the Mountain Ok

Around Ok Tedi, locally constructed understandings of development incorporate meanings and values attributed to pre-mine life as well as to present-day material and moral conditions. Contemporary life is understood as modern and both morally and materially

superior to pre-mine life. A lack of access to royalties, employment and ‘services’ is cause for great concern among residents of Migalsim (OL), as are the fears that contact with modernity will cease after mine closure. Nonetheless, neither of these issues are understood to be problematic by expatriates and non-Mountain Ok PNG ‘nationals’ working for OTML’s community development programmes. In viewing the Mountain Ok’s social world as backwards and ‘bush’, many OTML development workers suggest that the closure of the mine will *not* affect local people, who will go ‘back’ to their pre-mine life. These attitudes, which deny local villagers coevalness, appear to be rooted in a lack of social interaction between expatriates and senior OTML employees, and local residents (Fabian 1983 cit. in Escobar, 1991:673). Such social divisions also lead to misunderstandings between villagers and OTML’s development workers, jeopardising the possibility that sustainable, desirable and equitable development will occur after the projected closure of the mine.

As discussed above, the shape of NRRE companies’ community development projects may be structured by predicted remaining mine life, and thus the profit motive of mining corporations. In PNG, the sustainable development programmes which accompany resource extraction may be structured more by the attitudes of company officials than by the desires of local populations. Golub (2006:268–269) describes how sustainable development coordinators at the Porgera Joint Venture gold mine view the local Ipili as ‘a f—ked culture,’ because Ipili uses of royalties do not accord with the plans they devised. Golub suggests that Ipili cosmology engenders a view of work as necessary, but exhaustive of a person’s finite life energy and not productive of surplus (Golub 2006:271). Royalties are thus not put to use as ‘seed capital’ (Golub 2006:268) because a productive outcome is not expected (compare Taussig 1977). Ok Tedi Community Relations (OTMLCR) workers view development very much in terms of what *they* ‘want [the locals] to do’ (Paru, male, 40s). Assumptions made about local villagers, and inattention to the culturally specific frameworks through which understandings of development are produced, leads to unproductive and undesirable development outcomes.

Residents of Migalsim Old Location spoke to me of *when*, and not *if*, development would come to them as it had to New Location. For some, the conviction that electricity and roads would come was phrased in terms of Christian cosmology, and a confidence that prayer would lead to ‘blessings’ (like those brought by Ok Tedi) continuing for some time after mine closure (Benjamin, male, 40s; Rebecca, female, 30s; see Dundon 2004; Robbins 2005b). The general confidence that mine closure would not reduce material living standards or integration into the market economy did, however, encounter problems when landowners at Migalsim (NL) and OTML managers expressed different understandings of ownership of the hydroelectric plant for which New Location residents receive LMP royalties.

For one influential man in Migalsim (NL), the closing of Ok Tedi will not lead to significant difficulties, since he envisions the sale of the hydroelectric plant – the basis of the LMP (Figure 10) – to the upcoming Frieda mine in the neighbouring Sundaun Province (Jorgensen 2004). Yet R. Jackson's (2002:23) assessment that the 50 Megawatt production capacity of the plant, combined with a projected 2MW demand in Tabubil after mine closure, will lead to it being mothballed is shared by OTML managers (Paru, male, 50s). This misunderstanding may be due to a lack of communication between OTML employees and local villagers, as well as different ideas about the property relationships that ‘compensation’ and ‘royalty’ payments engender (Kirsch 2004b; Mawuli and Sanida 2000:11).

Different understandings of who is in control of resource use and development can also be seen in the way that OTMLCR employees understand the process by which funds from development trusts, set up under the CMCA's discussed in the introduction, are allocated to mine area villages. One opinion in Wangbin and Migalsim (NL) is that trusts should allocate projects that village committees decide to undertake. OTMLCR managers see the process differently:

Village people, you know, everyone aspires to Western styles of development. Chicken farms, agriculture. But we have to assess how viable – remote areas, it has to have some sensibility in it. (Robyn, female, 30s)

The whole idea of this food is so they spend more time getting to a more permanent way of life... [it] means they have to work harder, which is not in their culture, that's the challenge we have. The difficulty here is the people have the cash handouts – so many people are not farming as we would like them to do. The pickup of *what we are trying to transfer to the communities* is very low. (Rodney, male, 40s, emphasis added)

More than simple paternalism, such statements reflect the ways in which educated PNG nationals distance themselves from local populations, who in their view belong to (and perhaps are adapted to) a different place and time:

Here they are comfortable, they don't come to the hospital, they have their traditional medicines in the bush...If we improve literacy, in 10–20 years, then maybe there'll be cash. Some people don't need cash. In this area, they don't have cash, or roads, but they are comfortable, they survive. (David, male, 50s)

These sentiments may reflect an internalisation of the ideals of the Melanesian Way, which posits the village as the ideal basis for social organisation (Golub 2006:288; Otto 1997). They could also, however, be read as indications that notions of tradition and *kastom* can be used to pressure marginalized villagers in PNG to 'remain traditional,' while elites pursue their interests as waged, educated employees of multinational NRRE corporations (Keesing 1996:164).

Contrary to the views of OTMLCR workers cited above, many among the Mountain Ok are deeply concerned about mine closure, and may perceive the coming of the mine in the first instance as an incontrovertible rupture with the past. Thus, for those who have already 'tasted money,' going 'back to subsistence' would be both materially and morally distressing (Samson, male, 20s). Indeed, as suggested above, some of those who *are* confident about the future may be so because of misunderstandings about ownership and the downscaling of health, education and utilities services that will come with mine closure. It seems that

despite cultural impact assessments having been conducted (a legal requirement around mine sites in PNG [Lindstrom and White 1994:15–16]), communication between stakeholders in the mine and the local community has been weak (Hilson 2002). Underlying this weak communication, and the unproductive assumptions that are made by development workers about local people, is a construction of the Mountain Ok as belonging in a time and place set apart, and a lack of attention to the ways in which desires for development are locally constructed.



Figure 10: The hydroelectric plant at New Migalsim. Photograph by Paul Gilbert.

Conclusions: The development of difference

Development produces difference. Rather than transforming the economic and social structure of entire populations wholesale, development projects, programmes and strategies often introduce inequality. When economic growth is pursued and achieved at the level of a national economy, it is often accompanied by a rise in income inequality (T. Jackson 2009), and economic changes, far from operating in a social and cultural vacuum, produce their effects in interaction with local social forms (K. Gardner and Lewis 1996:56). Around NRRE sites, new social boundaries may be erected between individuals conceived of as ‘modern’ and ‘backward’ according to styles of dress, consumption and comportment (Nash 1979:2, 312–332; Ferguson 1999). As this study shows, NRRE-related hyperdevelopment not only produces new categories of social difference based on wealth, education, and kinship; it operates through perceptions of social difference, and the desires for (or fears of) being identified as ‘educated’ or as *kanakas* that various social actors around Ok Tedi have. I aimed to show that certain actors have more power to negotiate the categories of social and economic difference introduced by NRRE than others. Notably, certain non-local men whose education and employment marks them out as morally superior to local village men (who may be unable to raise bridewealth), *can* access royalties when they become ‘censused’ to their wives’ SML or LMP villages. Status differences are turned into class differences through the re-drawing of kinship boundaries, even where this appears to violate the emerging official discourse of patrilineal virilocal kinship *kastom*. Likewise, OTMLCR employees, in classifying local villagers as ‘comfortable in the bush,’ consign many actors to what is experienced as a morally and materially unsatisfying mode of development.

Another dimension of social difference which has been discussed here relates to the emergence of tightly bounded, patrilineal royalty-receiving kinship groups, and an official kinship discourse that belies earlier patterns of flexible cognatic kin recruitment. Some (e.g. Hirsch 2004) have suggested that the tightening of kinship boundaries in the context of resource extraction and royalty payments to customary landowners in PNG is a result of already existing indigenous cultural processes. In particular, that of presenting selves or

groups as powerful when interacting with large scale industry and the national legal system. Others, however have seen such changes in kinship structure, the subsequent inequalities they bring, and miscommunication between NRRE community relations workers and locals, as the product of a neoliberal ‘managerial culture’ (Weiner and Glaskin 2007:6; cf. Hayden 2003:128), which rests on the need to interact with easily definable social units. The data produced during my fieldwork suggest that the decisive factor may not only be the rise of a managerial culture. The confusing attitudes to pre-mine life – as something to be overcome, and at times something to be valued – evident around Ok Tedi may point to the influence of PNG's formal education system on attitudes towards a generalised notion of culture or *kastom*. Mountain Ok may ultimately be making the transition ‘from “natives” to “nationals”’ (Jorgensen 1996:189) that is occurring elsewhere in Melanesia, and this may be reflected in both kinship re-organization and an emerging pattern of class-based social differentiation.

This study has been written based on an admittedly fleeting period of fieldwork. The elicitation of kinship structures was the area of enquiry most limited by the short time spent in the field, and indeed by my lack of linguistic competence. As such, interpretation of my inability to elicit ‘exact genealogical¹⁹ connections’ should certainly not be read as a reflection of incomplete knowledge about kinship on the part of the contemporary Mountain Ok with whom I spoke. It may, however, reflect a reluctance to communicate about relationships in fixed terms, under conditions whereby kinship boundaries around

19 My assumption that I was looking for *genealogies* itself reflects a Euro-American (or indeed, specifically English) mode of appreciating kinship relationships – one in which relationships are understood to be based on sequence, essence, and transmission of substance, and whereby each individual is said to be ‘specified in its essential nature through the bestowal of attributes passed along lines of descent, independently and in advance of its emplacement in the world’ (Ingold 2009:206). I did not realise it at the time I conducted fieldwork, but in my efforts to learn about local kinship structures and practices, I was reproducing the genealogical assumptions that led OTML and the PNG State to seek out (and help create) bounded patrilineal in the vicinity of mineral extraction projects, under the assumption that these were the appropriate bodies to whom they could pay royalties or offer compensation.

mineral-extraction projects in PNG are being redrawn in exclusionary, unilineal terms (cf. Gilberthorpe 2007). This said, the perspectives on and commitments to different modes of development which were apparent in the discourse of OTML managers, or made explicit in interviews with local royalty-receiving and non-royalty receiving residents, do, I believe, stand up to scrutiny far more than any attempt at a comprehensive account of local kinship on my part could. In addition, some tentative suggestions can be made about future directions for anthropological research on NRRE in PNG that would build on the findings presented here. One notable challenge is that the desire for mine continuation (or at least the fear of reverting to pre-mine lifestyles upon its closure) evident among the Mountain Ok is not necessarily concordant with anthropological desires to promote equitable, participatory and sustainable development (e.g. Gow 2002). For Benson and Kirsch (2010:461) sustainable mining is an oxymoron, a term produced as part of attempts to diffuse criticisms that are made by actors in a 'harm industry,' whose production strategies are predicated on social and environmental devastation. Perhaps focusing anthropological attention on local environmental knowledge and cultivation systems is one direction that could be taken towards supporting sustainable development. If so, however, researchers should tread with care; OTMLCR's existing efforts to promote horticultural solutions for the problem of sustainable development caused by impending mine closure are based on problematic assumptions about, and ignorance of, Mountain Ok desires for particular forms of moral and material development. One area particularly deserving of further anthropological attention is research into how the temporalities of mining projects are affected by investor, shareholder and manager behaviour (e.g. Emel 2002), on the other side of transnational NRRE networks. Increasing anthropological – and local – understanding of NRRE project temporalities may go some way towards equipping local actors to deal with, or at the very least accurately conceptualize, how long it may be before they, like Ferguson's interlocutors on the Zambian Copperbelt, risk confronting the form of modernity they desire through the looking-glass.

List of acronyms

BHP – Broken Hill Proprietary
CMCA – Community Mine Continuation Agreement
OTML – Ok Tedi Mining Limited
OTMCLR – OTML Community Relations
LGIA – Land Groups Incorporation Act
LMP – Lease for Mining Purposes
NRRE – Non-Renewable Resource Extraction
PNG – Papua New Guinea
PNGSDC – PNG Sustainable Development Company
SML – Special Mining Lease

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